

CALIFORNIA DEPARTMENT OF WATER RESOURCES

Climate Change in the SWP Delivery Capability Report

February 16, 2022



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DCR - Purpose

- Part of the Monterey Plus Settlement Agreement
- Bi-annual report of Existing delivery capability
 - Over a range of hydrologic conditions
 - Historic extended dry cycle
 - Long-term average
- Added Future delivery capability at the SWC request



DCR – Key Results

- The most important information used by contractors is the **long-term average** and the **single dry year** delivery
- SWP Table A, Article 56, & Article 21 - average annual deliveries
 - Long-Term
 - Wet Periods
 - Dry Periods
- Individual Contractor deliveries for the same categories above

Table 5-5. Estimated Average and Dry-Period Deliveries of SWP Table A Water, Excluding Butte County and Yuba City (Existing Conditions, in taf/year), and Percent of Maximum SWP Table A Amount, 4,133												
	Long-term Average (1921–2003)		Single Dry Year (1977)		Dry Periods							
					2-Year Drought (1976–1977)		4-Year Drought (1931–1934)		6-Year Drought (1987–1992)		6-Year Drought (1929–1934)	
2015 Report	2,550	62%	454	11%	1,165	28%	1,356	33%	1,182	29%	1,349	33%
2017 Report	2,571	62%	336	8%	1,206	29%	1,397	34%	1,203	29%	1,408	34%

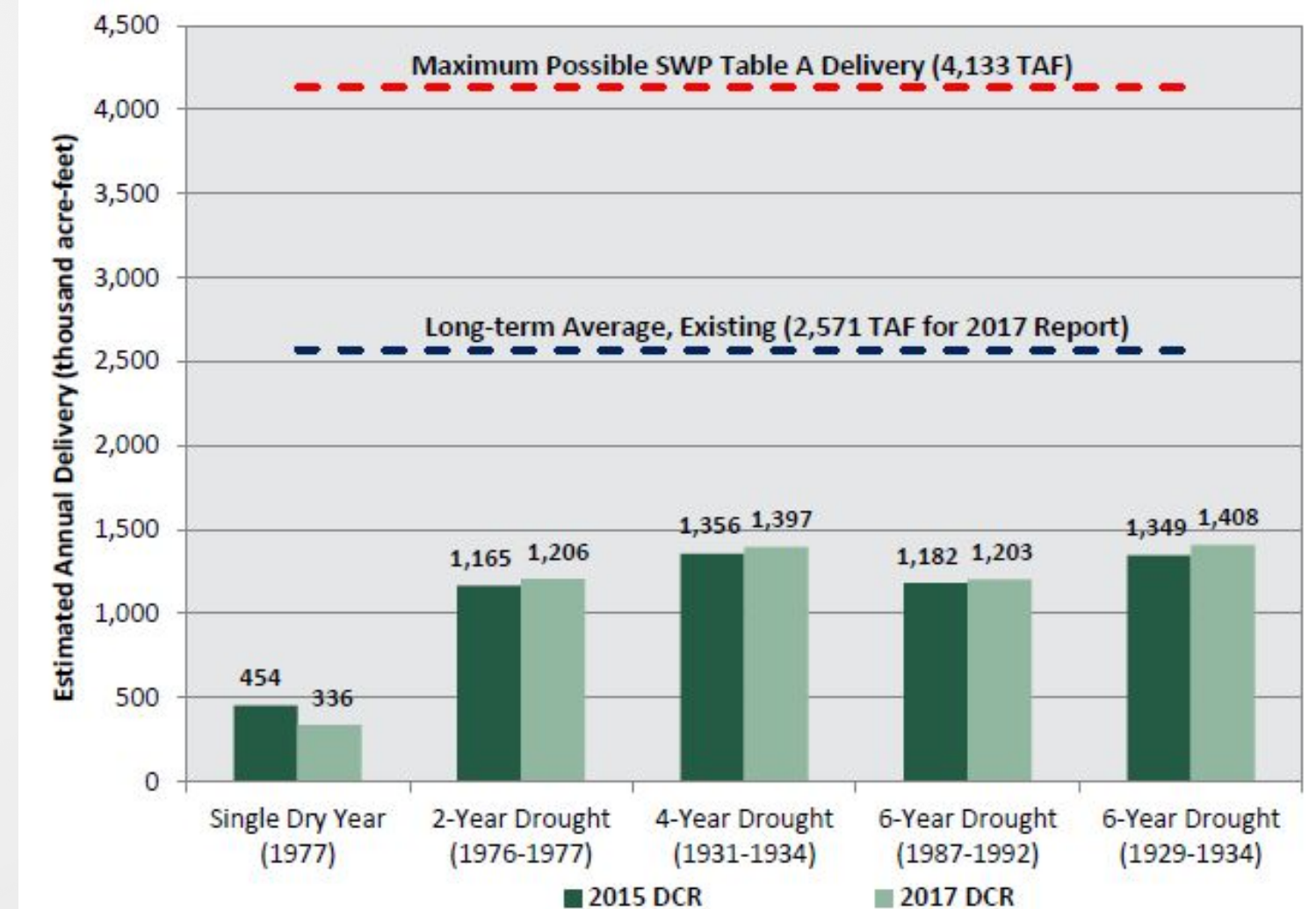


Figure 5-4. Estimated Dry-Period SWP Table A Water Deliveries (Excluding Butte County and Yuba City)



Draft DCR 2021 Results: Existing Condition

Wet Period SWP Table A Water Deliveries

Report	Long-term Average		Single Wet Year (1983)		Single Wet Year (2011)		Wet Periods							
							2-Year (1982-1983)		4-Year (1980-1983)		6-Year (1978-1983)		10-Year (1978-1987)	
DCR 2019 (1922-2003)	2,414	58%	4,008	97%	-	-	3,750	91%	3,330	81%	3,210	78%	2,967	72%
DCR 2021 draft (1922-2015)	2,309	56%	3,940	95%	3,573	86%	3,762	91%	3,186	77%	3,088	75%	2,893	70%

Dry Period SWP Table A Water Deliveries

Report	Long-term Average		Single Dry Year (1977)		Single Dry Year (2014)		Dry Periods									
							2-Year Drought (1976-1977)		2-Year Drought (2014-2015)		4-Year Drought (1931-1934)		6-Year Drought (1987-1992)		6-Year Drought (1929-1934)	
DCR 2019 (1922-2003)	2,414	58%	288	7%	-	-	1,311	32%	-	-	1,228	30%	1,058	26%	1,158	28%
DCR 2021 draft (1922-2015)	2,309	56%	203	5%	198	5%	1,360	33%	974	24%	910	22%	1,114	27%	1,046	25%

- Draft release: December 31, 2021
- 30-day comment period
- Final release: Scheduled for March 31, 2022



The DCR serves as the default climate change scenario for SWP planning:

- PARO- future resource planning
- Oroville cold-water and pumpback studies
- California Aqueduct subsidence program (project operations only)



DCR – Evolution Timeline

2003 -2005
(Current & Future
land-use)

2015 (Included 4
Futures consistent
with BDCP)

2007 – 2013
(Incorporation of
Climate Change
effects)

2017 -2021 (Single
Future condition
included only in
UWMP years)



DCR – Current Form

- Existing delivery capability
- Future delivery capability informed by climate change
 - Released in years aligned with Urban Water Management Plans (~ 5 years)
- SWP Contractors have expressed desire for “one number”
- Climate changed inputs “taken off the shelf” (BDTCP, ITP, etc.)



Climate Change – Considerations

State Laws and Pronouncements:

- AB 1482
- AB 2800
- EO B-30-15
- EO N-10-19

DCR ramifications to local planning and investment decisions:

- SWP Contractors
- UWMPs
- AGWMPs
- IRWMPs
- and other entities

WRM75 & CAPII provides a framework for climate change analysis consistency

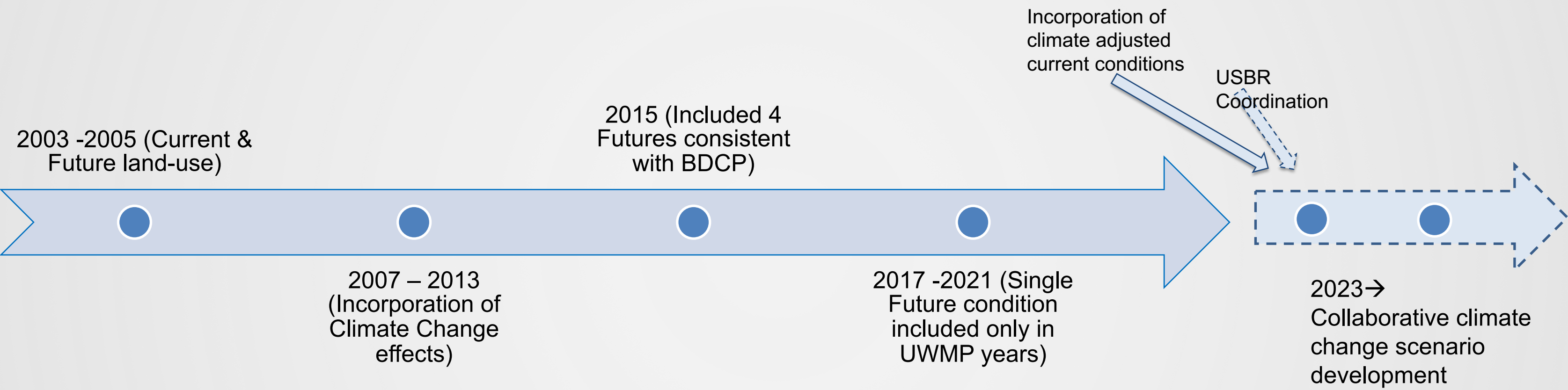


Climate Change is Now

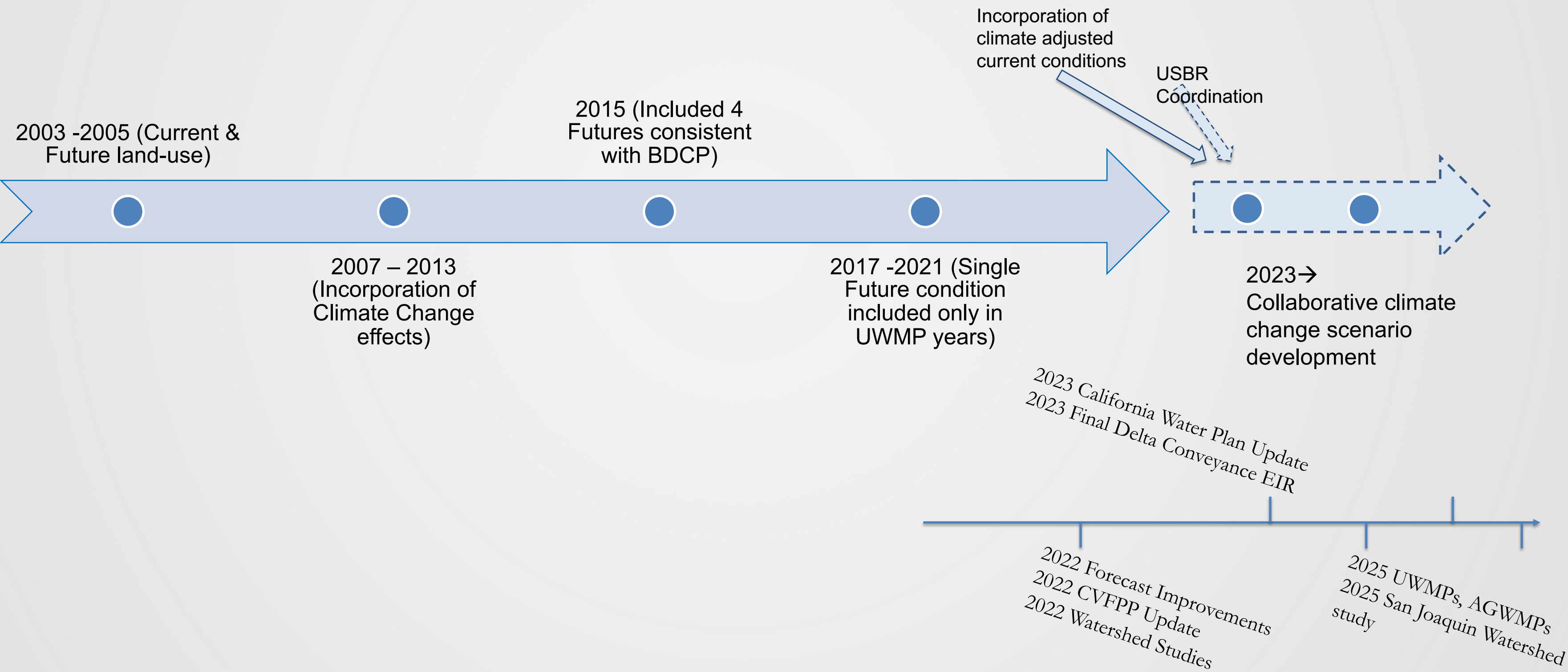
- Creation of a new “Climate Adjusted Current Conditions” simulation
 - Account for climate changes that have *already* occurred
 - Estimation of *current* SWP capacity and reliability for use in operations and planning studies
 - Moving forward-future climate changes would be mapped onto this new baseline



DCR Climate Change Planning



DCR Climate Change Planning



Key Take Home Points

- The DCR has become the most consequential source of climate change information for the SWP
- DCR climate change information has been driven by the “last-big-project”
- Moving forward we want to be more intentional and collaborative in our development of climate change information

